Docket No.: 4590-502

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-6 (canceled).

7. (new): A cellular inverter for generating an alternating electrical voltage from a succession of various serial combinations of DC voltage electrical sources, comprising:

a series of several elementary cells and a switching control unit, said elementary cells having a bridge structure with a controlled switch in each of the branches of the bridge and a DC voltage electrical source in a first diagonal of the bridge, and being interconnected within the series via the second diagonal of their bridge structure, said switching control unit delivering the control commands for the controlled switches of the various elementary cells comprising:

- a high-frequency switch-mode voltage regulation circuit operating so as to minimize an error signal that is representative of the difference existing between the electrical voltage present across the ends of the series of cells and a variable voltage setpoint sampling a model form of alternating voltage, and generating signals indicating arrival at upper and lower limits of its range of operation, and

- a circuit for selecting the serial combination of the DC voltage electrical sources of the elementary cells in service controlled by means of the signals indicating arrival at upper and lower limits of range of operation delivered by the high-frequency switch-mode voltage regulation circuit wherein said switching control unit comprises a high-frequency switch-mode voltage regulation circuit equipped with a pre-compensation device that is controlled by the signals indicating arrival at upper and lower limits of range of operation and that corrects its lag during a voltage jump caused by a change of the serial combination of DC voltage electrical sources currently in use.

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8. (new): The inverter as claimed in claim 7, wherein the pre-compensation circuit takes into account the values of the voltage jumps associated with the combination changes undertaken by the combination selection circuit, the combination change moments indicated by the limit reach signals and the reaction time of the high-frequency switch-mode voltage regulation circuit.

- 9. (new): The inverter as claimed in claim 7, wherein the pre-compensation device comprises a compensation form generator controlled by means of the limit reach signals from the switch-mode voltage regulation circuit and an adder circuit that adds the compensation form delivered by the compensation form generator circuit to a signal from the high-frequency switch-mode voltage regulation circuit fixing the duration of a chopping period assigned to the conduction.
- 10. (new): The inverter as claimed in claim 9, wherein the pre-compensation device comprises a compensation form generator controlled by means of the limit reach signals from the switch-mode voltage regulation circuit and of a signal (ad) coming from the combination selector that provides data on the amplitude of the voltage jump accompanying each change of serial combination, and an adder circuit adding the compensation form delivered by the compensation form generator circuit to a signal (Sc) from the high-frequency switch-mode voltage regulation circuit fixing the duration of a chopping period assigned to the conduction.
- 11. (new): The inverter as claimed in claim 9, wherein the compensation form generator circuit is a memory storing, in sampled form, various forms of compensation established by experimentation for each combination change generated by the combination selection circuit.
- 12. (new): The inverter as claimed in claim 9, wherein the compensation form generator circuit is a memory that contains compensation forms associated with the DC voltage jumps encountered during the combination changes and that is addressed by an addressing circuit deducing, from the limit reach signals, the DC voltage jump corresponding to the combination change carried out by the combination selection circuit.

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